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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,884	10/13/2005	Mauri Salmisuo	ST9175PCT(US)	9186
22203	7590	03/24/2008		
KUSNER & JAFFE HIGHLAND PLACE SUITE 310 6151 WILSON MILLS ROAD HIGHLAND HEIGHTS, OH 44143			EXAMINER PRICE, CRAIG JAMES	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 03/24/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/552,884

**Applicant(s)**

SALMISUO, MAURI

**Examiner**

Craig Price

**Art Unit**

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/12/2008 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (5,351,713).

Lin discloses a sanitizable float valve to be used in water purification circulation, the valve comprising,

a body (31) defining a valve chamber,

a fluid inlet disposed in the body fluidly communicating with the chamber,

a fluid outlet disposed in the body fluidly communicating with the chamber, and

a closing element (36) placed into the valve chamber of the body, the closing element having a length essentially longer than a diameter of the closing element, wherein the valve chamber of the body and the closing element are dimensioned to form an allowance therebetween and wherein a part of a fluid exiting the valve exits through the allowance (at least part the fluid goes out the top portion above 35, since 35 and 31 show a gap between them, certainly fluid can pass through this exit) and a majority of the fluid exiting the valve exists through the fluid outlet when the valve is open as shown in figure 8A.

Regarding claim 2, Lin discloses that the closing element (the cone of 36) has a partly convex sealing surface dimensioned to sealingly engage the fluid inlet of the valve.

Regarding claim 3, Lin discloses that an end of the closing element opposite to a front surface (the front surface being the underside of the bore through which the cone extends through) is rounded.

Regarding claim 4, Lin discloses that the valve chamber is substantially cylindrical in form (as indicated in figure 2) the chamber contour conforms to the "tubular portion" of the valve) and the closing element of the valve is substantially circular in cross section (taking the cross section in parallel with the 90 degree elbow, the cross section of the cone is circular).

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Dill (3,324,878).

Dill discloses a sanitizable float valve to be used in water purification circulation, the valve comprising,

- a body (10) defining a valve chamber,
- a fluid inlet (5) disposed in the body fluidly communicating with the chamber,
- a fluid outlet (7) disposed in the body fluidly communicating with the chamber,

and

- a closing element (8,10) placed into the valve chamber of the body, the closing element having a length essentially longer than a diameter of the closing element, wherein the valve chamber of the body and the closing element are dimensioned to form an allowance therebetween and wherein a part of a fluid exiting the valve exits through the allowance (since no seal exists in the plunger, then part of the fluid can exit down past 9 in the vertical position, Col.3, Lns. 64,65) and a majority of the fluid exiting the valve exists through the fluid outlet when the valve is open as shown.

Regarding claim 2, Dill discloses that the closing element (the cone of 11) has a partly convex sealing surface dimensioned to sealingly engage the fluid inlet of the valve.

Regarding claim 3, Dill discloses that an end of the closing element opposite to a front surface (the front surface being the underside of the seal face 12 through which the cone extends through) is rounded.

Regarding claim 4, Dill discloses that the valve chamber is substantially cylindrical in form (as indicated in figure 4) the chamber contour conforms to the "tubular portion" of the valve) and the closing element of the valve is substantially circular in

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cross section (the contours of the components must match the view in figure 4 to properly fit, therefore the closing element is also circular).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin '713 in view of Bierman (2,793,654).

Lin is silent to the float valve having a closing element made from PTFE.

Bierman discloses a float assembly, which teaches a valve made from PTFE (Col.2, Lns. 33-38).

It would have been obvious to one of ordinary skill in the art at the time of invention to employ a PTFE closing element as taught by Bierman into the assembly of Abey in order to "give no leakage" (Col.2, Lns. 33-38).

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dill '878 in view of Bierman (2,793,654).

Lin is silent to the float valve having a closing element made from PTFE.

Bierman discloses a float assembly, which teaches a valve made from PTFE (Col.2, Lns. 33-38).

It would have been obvious to one of ordinary skill in the art at the time of invention to employ a PTFE closing element as taught by Bierman into the assembly of Abey in order to "give no leakage" (Col.2, Lns. 33-38).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. The valves of both Lin and Dill have outlets on the side of the housings that provide flow area for the majority of the flow to pass through, also these valves have gaps or clearances or allowances between their respective moving valve members and the cavities in which they reside to allow a portion of the fluid to pass through.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Christiansen (4,541,464) discloses a similar valve.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig Price whose telephone number is (571) 272-2712. The examiner can normally be reached on 7AM - 5:30PM Mon-Thurs, Increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CP

16 March 2008

/John Rivell/  
Primary Examiner, Art Unit 3753

/C. P./

Examiner, Art Unit 3753